Shaughnessy Number: 128857

Date out of EFGWB: JAN 25 1993

To: Lewis/Fairfax
Product Manager 21
Registration Division (H7505C)

From: Akiva Abramovitch, Section Head
Environmental Fate Review Section #3
Environmental Fate and Ground Water Branch
Environmental Fate and Effects Division (H7507C)

Thru: Hank Jacoby, Chief
Environmental Fate and Ground Water Branch
Environmental Fate and Effects Division (H7507C)

Attached, please find the EFGWB review of...

Reg./File #: n.a.

Chemical Name: Myclobutanil

Type Product: Fungicide

Company Name: Rohm and Haas

Purpose: emergency exemption on strawberries

Date Received: 08/18/92

Action Code: 510 EFGWB #(s): 92-1278 Total Review Time: _____ days

EFGWB Guideline/MRID/Status Summary Table: The review in this package contains...

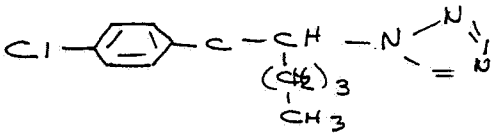
161-1		162-4		164-4		166-1	
161-2		163-1		164-5		166-2	
161-3		163-2		165-1		166-3	
161-4		163-3		165-2		167-1	
162-1		164-1		165-3		167-2	
162-2		164-2		165-4		201-1	
162-3		164-3		165-5		202-1	

Y = Acceptable (Study satisfied the Guideline)/Concur
P = Partial (Study partially satisfied the Guideline, but additional information is still needed)
S = Supplemental (Study provided useful information, but Guideline was not satisfied)
N = Unacceptable (Study was rejected)/Non-Concur

bcp

1. CHEMICAL:

chemical name: α-butyl-α(4-chlorophenyl)-1H-1,2-triazole-1-propanenitrile
common name: Myclobutanil
trade name: Systhane, Rally
structure:



CAS #: 66871-89-0
Shaughnessy #: 128857

Z

2. TEST MATERIAL: described in DER

3. STUDY/ACTION TYPE: request for emergency exemption for use on strawberries

4. STUDY IDENTIFICATION: n.a.

5. REVIEWED BY:

Typed Name: E. Brinson Conerly-Perks
Title: Chemist, Review Section 3
Organization: EFGWB/EFED/OPP

E. Brinson Conerly-Perks
1/21/93

6. APPROVED BY:

Typed Name: Akiva Abramovitch
Title: Head, Review Section 3
Organization: EFGWB/EFED/OPP

Akiva Abramovitch
JAN 21 1993

7. CONCLUSIONS:

1) The submission does not contain any additional environmental data or information.
2) The discussion contained within the submission is directed to economic and efficacy issues which are not within the purview of EFGWB.
3) The proposed use appears to be a limited one, which would not produce a greatly increased environmental burden.
4) It has still not been determined whether Myclobutanil leaches in the field, and this remains a significant data gap.

8. RECOMMENDATIONS:

EFGWB concurs with granting this emergency exemption for limited use on strawberries. It should be noted that resistance of Myclobutanil to degradative processes and its possible mobility in the field are still serious concerns.

9. BACKGROUND:

Myclobutanil appears to resist most environmental breakdown processes. The most rapid degradation is produced by aerobic metabolism in soil, half-life ca. 60-70 days. In studies of other processes, there was essentially no degradation over the experimental period, and a valid half-life was not established. In laboratory studies, Myclobutanil appears to be mobile, although available field dissipation data are inconclusive. Because the

compound has had limited use, further data requirements were deferred until new field studies were received and evaluated. A new field study has been received recently. In a previous review (EBC 11/8/88), EFGWB reserved further data requirement on triazole, and deferred to Residue and Toxicology Branches for assessment of dietary risk potential of Myclobutanil and its triazole metabolite..

The status of data requirements is as follows:

hydrolysis -- satisfied (MRID# 001416-79, ER 3/26/85; additional information 11/26/85, JHJ 3/5/86) -- stable at pHs 5, 7, 9

photolysis in water -- satisfied (MRID# 405288-01, EBC 4/12/88; added info MRID# 403198-01, EBC12/22/87 and MRID# 406415-01, EBC 8/24/88) -- stable to photolysis in water under sterile conditions

photolysis in soil -- satisfied (Acc# 266121, EBC 5/22/87; additional info Rec # 214084, EBC 4/12/88) -- extrapolated $t_{\frac{1}{2}}$ ca. 143 days

aerobic soil metabolism -- satisfied (MRID# 001416-80, ER 3/26/85; additional information dated 11/26/85, JHJ 3/5/86; additional information Rec# 265748, JHJ 5/19/87)-- $t_{\frac{1}{2}}$ 61-71 days -- major product is 1,2,4-triazole up to ca. 15%, with CO_2 and unextractables in lesser amounts

anaerobic soil metabolism -- satisfied (MRID# 001416-80, ER 3/26/85; additional information Rec # 214085, EBC 4/12/88)-- resistant to anaerobic metabolism -- no detectable degradation after 60 days

leaching

parent -- satisfied -- (MRID 001416-81, ER 3/26/85; additional discussion, JHJ 3/5/86) -- moderately mobile in five soils: clay loam, sand, silt loam, sandy loam, clay -- k_ds 1.46 - 9.77 for adsorption, 0.47-4.18 for desorption

aged compound -- satisfied -- (MRID# 406415-02, EBC 8/24/88; additional information MRID 408915-01, EBC 3/20/89) -- 1,2,4-triazole is highly mobile in 5 different soils: sand, sandy loam, silty clay loam, clay loam, and silty clay -- adsorption k_ds, ca. 0.7 - 0.8; desorption k_ds, ca. 0.8 - 7.9

terrestrial field dissipation -- MRID# 421811-01 is currently under review; The requirement was not satisfied by previously submitted information (Acc# 265749, EBC4/12/88; additional information, MRID# 403198-01, EBC 11/10/88)-- the submitted study was deemed unacceptable for a number of reasons. Additional discussion did not resolve the problems.

fish bioaccumulation -- waived (Acc# 264484, JHJ 5/19/87), due to low k_{ow}s for parent and degradates -- not likely to bioaccumulate.

10. DISCUSSION OF INDIVIDUAL TESTS OR STUDIES: n.a.

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11. COMPLETION OF ONE-LINER: no information added

12. CBI APPENDIX: n.a.